

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : KDDI RESEARCH & DEVELOPMENT
LABORATORIES INC

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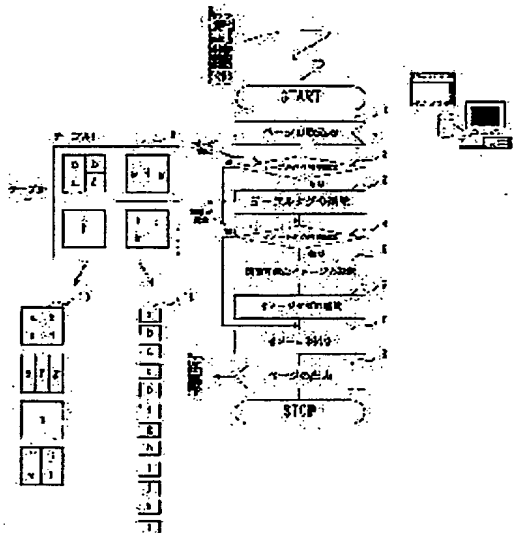
(72)Inventor : MORIKAWA HIROO
OTA SHINJI
NAKAMURA HAJIME
WARABINO TAKAYUKI
OHASHI MASAYOSHI
WATANABE FUMIO
IWASHITA HIDEAKI

(54) PROXY SERVER AND METHOD FOR RE-EDITING PAGE AND RECORDING MEDIUM
RECORDED WITH PROGRAM THEREFOR

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a proxy server which re-edits a page generated by the mark-up language, so that the page is easy to visually recognize even on the small-sized display screen of a terminal or a recording medium where a program is recorded.

SOLUTION: A 1st means deletes table tags from a page composed of the table tags and image tags and a 2nd means varies the values of the lateral width and longitudinal width of the image tags, corresponding to the ratio of the lateral width of the display screen of the terminal to the lateral width of image tags.



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1. This document has been translated by computer. So the translation may not reflect the original precisely.
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3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] A proxy server which carries out the reorganization collection of the page created by a markup language corresponding to a small display screen of a terminal, comprising:

1st means to delete said table tag about said page which comprised a table tag and an image tag.

2nd means to change a value of breadth of this image tag, and a dip corresponding to a ratio of a value of breadth of a display screen of said terminal to a value of breadth of said image tag.

[Claim 2] The proxy server according to claim 1 characterized by not deleting a tag of one or more tables from a table of the last of an embedded structure when said 1st means is the embedded structure from which an element of the 1st table serves as the 2nd table.

[Claim 3] The proxy server according to claim 1 characterized by not deleting this table tag when said 1st means has breadth of a table displayed with said table tag smaller than breadth of a display screen of said terminal.

[Claim 4] A proxy server given in any 1 paragraph of claims 1-3, wherein said 2nd means deletes said image tag according to classification of an attribute set up in an image tag.

[Claim 5] A proxy server given in any 1 paragraph of claims 1-4, wherein said 1st means and said 2nd means can choose execution with directions of said terminal.

[Claim 6] A method of carrying out the reorganization collection of the page created by a markup language corresponding to a small display screen of a terminal, comprising:

The 1st phase of deleting said table tag about said page which comprised a table tag and an image tag.

The 2nd phase of changing a value of breadth of said image tag, and a dip corresponding to a ratio of a value of breadth of a display screen of said terminal to a value of breadth of said image tag.

[Claim 7] It is the recording medium which recorded a program which carries out the reorganization collection of the page created by a markup language corresponding to a small display screen of a terminal, About said page which comprised a table tag and an image tag, delete said table tag and it corresponds to a ratio of a value of breadth of a display screen of said terminal to a value of breadth of said image tag, A recording medium which recorded a program changing a value of breadth of said image tag, and a dip.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the recording medium which recorded the proxy server or program which carries out the reorganization collection of the page created by the markup language (Hyper Text Markup Language), for example, HTML, corresponding to the small display screen of a terminal.

[0002]

[Description of the Prior Art] HTML is used for page creation of WWW from the former. Although the text of the page was main at the beginning, an image has come to be used abundantly with the spread of a commercial internet and personal computers. Usually, since a complicated layout is constituted using an image, it uses combining a table tag and an image tag in many cases.

[0003] The page created in these HTML is created supposing the inspection by the display screen of a personal computer. Therefore, in order to peruse these pages with the personal digital assistant which only a small display screen has, it is necessary to perform not only vertical scrolling but horizontal scrolling.

[0004] In a personal digital assistant, the necessity of performing horizontal scrolling is abolished, and in order [which is perused and burned / which becomes empty] to carry out, there is the 1st method of carrying out the reorganization collection of the markup language so that the display size of the outer frame of a table may be uniformly reduced corresponding to the small display screen of a terminal. There is also the 2nd method of dividing into the HTML document for tables of contents which extracts automatically only the character described in the specific tag, and is drawn up, and two or more HTML documents which extract the document between these tags and are drawn up. As a reference, there are Naoko Ito, the Tachikawa ****, Nakagawa good **, Yasuhiro Mizukoshi "WWW page conversion-SmartProxy for personal digital assistants" (1997), SpyglassPrism 2.0, and IBM WebSphere Transcoding Publisher.

[0005]

[Problem(s) to be Solved by the Invention] However, on the whole, a table is reduced and it is hard coming to recognize in the 1st method visually in a personal digital assistant. When an image is used abundantly and it does not have the appearance as a document in the 2nd method, it is difficult to specify the specific tag used as a standard.

[0006] Then, this invention solves the technical problem mentioned above, and an object of this invention is to provide the recording medium which recorded the proxy server, method, and program which carry out the reorganization collection of the page created by the markup language so that it may be easy to recognize visually also by the small display screen of a terminal.

[0007]

[Means for Solving the Problem] A proxy server which carries out the reorganization collection of the page of this invention is provided with the following.

1st means to delete a table tag about a page which comprised a table tag and an image tag.

2nd means to change a value of breadth of an image tag, and a dip corresponding to a ratio of a value of breadth of a display screen of a terminal to a value of breadth of an image tag.

By deleting a table tag, frequency of operation of horizontal scrolling in a terminal can decrease, and the operativity of a terminal can be raised. Since breadth of each image is changed into breadth of a display screen of a terminal after deleting a table tag, operation of a terminal does not need horizontal scrolling too.

[0008] When the 1st means is the embedded structure from which an element of the 1st table serves as the 2nd table according to other embodiments of this invention, it is also preferred not to delete a tag of one or more tables from a table of the last of an embedded structure. It may be easy to recognize by doing in this way visually also by a small display screen of a

terminal.

[0009]As for this table tag, not deleting is also preferred when the 1st means has breadth of a table displayed with a table tag smaller than breadth of a display screen of a terminal according to other embodiments of this invention. As for a table of a size which can be displayed by a display screen of a terminal, it is preferred to display in the state of a table if possible.

[0010]As for the 2nd means, according to other embodiments by this invention, it is also preferred to delete an image tag according to classification of an attribute set up in an image tag. Information required for a user of a terminal is information on each element of a table tag, and an image which is used only for a layout is unnecessary. Especially an image used only for a layout since the original layout collapses by removing a table tag becomes the cause of making visual recognition mixing up to a user of a terminal. Therefore, by deleting such an image tag, a reorganization collection can be carried out so that a page may be easier to be recognized.

[0011]As for the 1st means and 2nd means, according to other embodiments by this invention, it is also preferred that execution can be chosen with directions of a terminal.

[0012]A method of carrying out the reorganization collection of the page of this invention is provided with the following.

The 1st phase of deleting a table tag about a page which comprised a table tag and an image tag.

The 2nd phase of changing a value of breadth of an image tag, and a dip corresponding to a ratio of a value of breadth of a display screen of a terminal to a value of breadth of an image tag.

[0013]A recording medium which recorded a program which carries out the reorganization collection of the page of this invention, About a page which comprised a table tag and an image tag, a table tag is deleted and it has a program which changes a value of breadth of an image tag, and a dip corresponding to a ratio of a value of breadth of a display screen of a terminal to a value of breadth of an image tag.

[0014]

[Embodiment of the Invention]Below, the embodiment of this invention is described in detail using a drawing.

[0015]Drawing 1 is a flow chart of the page reorganization collection by this invention.

Drawing 2 is an example of the page which is the target of a reorganization collection.

Drawing 3 is an example of the page after carrying out the reorganization collection of the page of drawing 2.

[0016]It explains according to the flow chart of drawing 1. If the notice of a purport which wants to refer to the page of drawing 2, for example is received from a personal digital assistant, the reorganization collection of the page will be performed. First, the page of drawing 2 is incorporated from the server holding the page concerned (1). Next, if table tag deletion setting out (2) beforehand notified from a personal digital assistant is "being", the table tag of the page concerned will be deleted (3).

[0017]Deletion of a table tag is deleting a tag as follows for example.

<TABLE> <TR> <TD>a </TD> -- <TD>b</TD> </TR> <TR> <TD>c< / TD <TD>d</TD>
</TR> </TABLE> **a<P>b<P>c<P>d<P>> [0018]Deletion of the table tag is explained by

the reference marks 9, 10, and 11. For example, the parent table 1 presupposes that it is a table like the reference mark 9. The element a, b, and c and d are displayed on the child table 1-1 used as the embedded structure of the parent table 1. Similarly, the element h is displayed on the child table 1-3, and the element i, j, and k and l are shown for the element e, f, and g in the child table 1-4 by the child table 1-2. In this case, a table is perpendicularly arranged like the reference mark 10 by deleting the table tag of the parent table 1. At this time, it is preferred

that each child table is fully displayed on the screen of a personal digital assistant. If it becomes a screen display which is hard to recognize when a child table is reduced, since the child table is larger than the screen of a personal digital assistant, it will be preferred to also delete the table tag of a child table. All the elements are perpendicularly arranged like the reference mark 11 by deleting the table tag of a child table. In a personal digital assistant, all these elements can be recognized only by vertical scrolling.

[0019]For example, the composition of the page of drawing 2 is constituted from the table 1 including the banner image etc. which were indicated to be oblong KDD, and the table 2 including two or more tables by the head. The table 2 comprises the table 2-1-3 of three rows, an image, and a text perpendicularly, respectively. The table 2-1-3 has an embedded structure of the table 2. These tables are constituted using the table tag specified with the colorless line.

[0020]Deletion of the table tag of the page of drawing 2 will create an one-row-long page like drawing 3. At this time, the image of the frame which is tinged with the radius of circle which encloses "MENU" in drawing 2 is displayed by drawing 3 as an image which cannot be displayed. Since the table tag was deleted, the arrangement place of this layout image is changed, and since it is no longer displayed as a frame, such a display is produced. Such an image is judged to be an image only for a layout. Then, if image tag deletion setting out (4) beforehand specified from the personal digital assistant is "being", it will choose as an image which can delete the image only for such a layout, and the tag of (5) and its image will be deleted (6).

[0021]As a factor judged that are not an image only for a layout, i.e., displaying is a required image, the ALT attribute etc. are set as the image tag, or that from which the image tag is a nest corresponds in A tag. An example of HTML judged not to be an image only for a layout below is shown.

A >[of "this being an apple"] ALT attribute is an explanatory note character displayed when moving the point of a mouse on the image concerned. [<IMG solvent refined coal="apple.gif" ALT=] An image which needs explanation does not serve as a candidate for deletion. A tag specifies a link button. Shape and coordinates, or a link destination etc. which can carry out linking into an image is specified as this USEMAP attribute as which what the USEMAP attribute was specified as in addition to these may be sufficient. Thus, an image which gives a visitor a choice does not serve as a candidate for deletion. On the contrary, the following images as which only the display of the image is specified serve as a candidate for deletion.

 [0022]Next, it reduces so that an image can be displayed on the screen of a terminal (7). That is, corresponding to the ratio of the value of the breadth of the display screen of a terminal to the value of the breadth of an image tag, the value of the breadth of an image tag and a dip is changed.

[0023]an image -- a tag -- being oblong -- an image -- specifying -- **** -- < -- IMG solvent refined coal -- = -- " -- apple . -- gif -- " -- WIDTH -- = -- " -- 100 -- " -- HEIGHT -- = -- " -- 50 -- " -- > -- a case -- a terminal -- a display screen -- breadth -- 100 -- it is -- if -- as follows -- in any way -- not changing .

< -- IMG solvent refined coal -- = -- " -- apple . -- gif -- " -- WIDTH -- = -- " -- 100 -- " -- HEIGHT -- = -- " -- 50 -- " -- > -- however -- a terminal -- a display screen -- breadth -- 50 -- it is -- if -- as follows -- changing .

< -- IMG solvent refined coal -- = -- " -- apple . -- gif -- " -- WIDTH -- = -- " -- 50 -- " -- HEIGHT -- = -- " -- 25 -- " -- > -- the ratio of WIDTH and HEIGHT does not change at this time.

[0024]The page which carried out the reorganization collection to the last to the personal digital assistant is outputted (8).

[0025]According to the person skilled in the art, change, correction, and an abbreviation of the versatility of the technical thought of this invention and the range of a standpoint can

perform easily various embodiments of the recording medium which recorded the proxy server, method, and program which carry out the reorganization collection of the page of this invention mentioned above. The above-mentioned explanation is an example to the last, and it is not going to restrain it at all. This invention is restrained by only what is limited as a claim and its equivalent.

[0026]

[Effect of the Invention]As mentioned above, as explained in detail, also when perusing the page supposing perusing on the screen of a personal computer on the screen of a personal digital assistant according to this invention, an inspection becomes possible by operation of only vertical scrolling. The operativity of the screen in a personal digital assistant also improves by deleting the image judged to be unnecessary as information.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

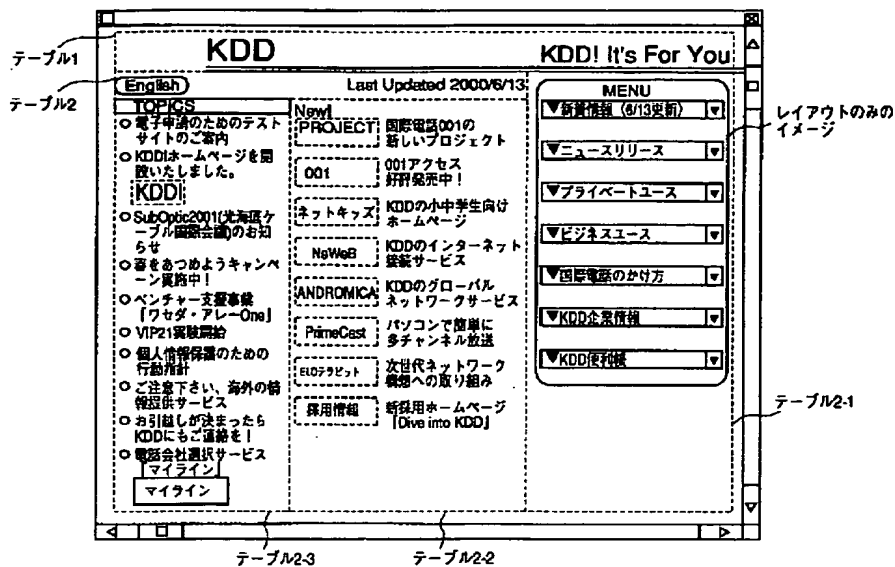
[Drawing 1]It is a flow chart of the page reorganization collection by this invention.

[Drawing 2]It is a page which is the target of a reorganization collection.

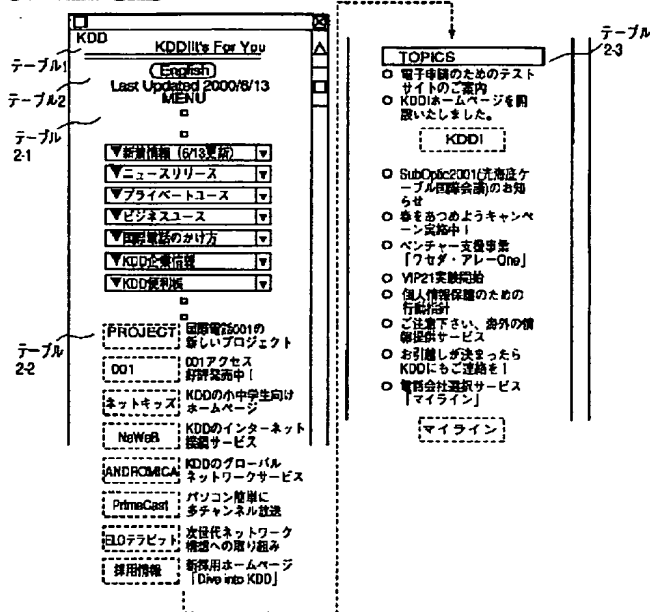
[Drawing 3]It is the page which deleted the table tag from the page of drawing 2.

[Drawing 4]It is the page which carried out the reorganization collection of the page of drawing 2 by this invention.

DRAWINGS



[Drawing 3]



[Drawing 4]

テーブル1
テーブル2
テーブル2-1
テーブル2-2

KDD

KDD It's For You

(English)

Last Updated 2000/8/13

MENU

▼新着情報 (0713更新) ▼

▼ニュースリリース ▼

▼プライベートユース ▼

▼ビジネスユース ▼

▼国際電話のかけ方 ▼

▼KDD企業情報 ▼

▼KDDの提携 ▼

PROJECT

国際電話001の新しいプロジェクト

001

001アクセス (開発中)

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NoWeB

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PrimeCast

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ELOテラビット

大容量ネットワーク網への取り組み

採用情報

採用ホームページ (Dive into KDD)

テーブル2-3

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